

## **REMARKS**

### **I. Office Action Summary**

Claim 1-43 are pending, (of which claims 1, 16, 20, 23, 27, 31 and 39 are independent). In the Office Action mailed February 9, 2006, the Examiner rejected claims 1-26 and 31-43 under 35 U.S.C. 101 and claims 1-43 under 35 U.S.C. 103(a). After careful review of the cited references, Applicants request favorable reconsideration in view of the following remarks.

### **II. Response to Rejection of Claims under 35 U.S.C. 101**

The Examiner rejected claims 1-26 and 31-43 under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter because it sets forth functional descriptive material but fails to set forth physical structures to produce a result.

Claims 1, 16 and 20 have been amended to recite a “computer-based system for executing instructions for ...”, and claims 23, 31 and 39 have been amended to recite a “computer-based method for normalizing information content in a document, the method comprising: using a processor executing one or more instructions for...”. Each claim recites instructions that can be executed by a computer to produce a result.

### **III. Response to Rejection of Claims under 35 U.S.C. 103(a)**

Claims 1-43 were rejected under 35 U.S.C. 103(a) as being unpatentable over by Bickmore et al. “Web Page Filtering and Re-Authoring for Mobile Users,” published 1999 by The Computer Journal (Bickmore) further in view of U.S. Patent No. 6,973,619 (Hirose). To establish a *prima facie* case of obviousness under §103 the cited references must teach or suggest all the claim limitations. (MPEP § 2142).

**A. Independent Claim 1**

Applicants submit that neither Bickmore nor Hirose, separately or in combination, teach or suggest “where a weight determines whether a node will be inserted into a normalized document as a folder title or folder contents,” and “wherein the automatic normalizer folderizes the information content by identifying content having a higher visibility on a display of the originally intended device and assigning the content having the higher visibility a weight indicative of a folder title,” as in claim 1.

The Examiner stated that Bickmore does not teach the limitations above but that Hirose shows them at col. 3, line 20 to col. 4, line 55. Applicants respectfully disagree.

Hirose teaches a method for generating **display control information** to display data in a form adapted to a terminal used by a user. The method first generates **a group of data objects** concerning the contents of the display, and then generates **a group of view objects** for generating the display control information by referring to attributes of the terminal. (Abstract).

Hirose teaches that initially data objects are generated independently of any terminal from a tree structure of a web page. (col. 13, lines 56-67). A root data object generates display control information for an entire page, and a child data object generates display control information for the page content. (col. 4, lines 9-11). For example, as shown in Figure 29, a root object would be restaurant information and child objects include guide info., menu, etc.

Hirose then describes that an HTML generator generates a view object for the display control information by using the root data object and attributes of the terminal (e.g., screen size) (see FIG. 27). (col. 17, lines 3-7). View objects will show information in order of its importance. (col. 17, lines 16-18). A linear display of view objects is generated for which

priority is taken into consideration by making a tree structure emphasizing what should be promptly shown to a user and a row structure for easy page dividing (see FIG. 29).

After view objects are generated, an HTML document is sequentially generated starting from the root view object. (col. 17, lines 45-47). Buttons for navigation between pages (the NEXT and PREV buttons) are also automatically generated so that a user can easily navigate divided pages. In Figure 30, Hirose teaches that an HTML document is generated to display on one page information of three view objects in order of priority from the information of "Screen size: 320% 240 dots" included in the information about attributes of the terminal. If the screen size was smaller, e.g., "Screen size: 240% 180 dots," the HTML document is generated to output information of only two view objects on one page. (col. 17, lines 53-61). **Thus, the screen size, or attributes of the terminal, determines what information is output as contents on a page.**

Applicants submit that Hirose does not teach or suggest "where a weight determines whether a node will be inserted into a normalized document as a folder title or folder contents," as in claim 1. Hirose does not make any mention of assigning weights to nodes, and does not discuss folderizing at all. Hirose teaches listing view objects in order of priority based on importance of the information, and then based on limitations of a requesting terminal, outputting an HTML document including as many view objects as can fit to a screen of the terminal. Thus, using the technique in Hirose, one user device can have an HTML document including content entirely different than another user device.

Hirose highlights this point in Figure 30, where in the first example, the "TEL: 9999-9999" is output as contents on one web page, but in the second example, to reach the "TEL: 9999-9999" information, a user has to navigate through divided pages using the NEXT and

PREV buttons. Thus, by using a divided page HTML document approach, Hirose avoids folderizing content, and thus teaches away from the present invention.

Applicants submit that Hirose also does not teach or suggest “identifying content having a higher visibility on a display of the originally intended device and assigning the content having the higher visibility a weight indicative of a folder title,” as in claim 1. For example, as shown in FIG 12 of the present application, content that is bolded or in large font has a higher visibility, and thus is assigned as a folder title in the normalized document. Hirose teaches that an HTML document is analyzed by a definition language analyzer to create a tree structure of data objects. However, Hirose does not explain how the analyzer works. Hirose simply refers to example analyzers at col. 13, lines 57-65, by referring to two webpages that no longer work. Thus, since Hirose does not explain how this is accomplished, Hirose cannot teach “identifying content having a higher visibility on a display of the originally intended device and assigning the content having the higher visibility a weight indicative of a folder title,” as in claim 1.

Furthermore, since Hirose avoids folderizing content, and thus teaches away from the present invention, Hirose makes no suggestion of “identifying content having a higher visibility on a display of the originally intended device and assigning the content having the higher visibility a weight indicative of a folder title,” as in claim 1.

The Examiner cited col. 3 line 20 to col. 4 line 55 in Hirose to show “where a weight determines whether a node will be inserted into a normalized document as a folder title or folder contents,” and “wherein the automatic normalizer folderizes the information content by identifying content having a higher visibility on a display of the originally intended device and assigning the content having the higher visibility a weight indicative of a folder title,” as in claim 1. However, that section in Hirose does not teach these limitations (as discussed above), thus the

Examiner made very broad statements attempting to show that the recited claim limitations would have been “obvious variants” of what is taught in Hirose. However, since Hirose teaches other techniques for displaying HTML documents, Hirose teaches away from the present invention, and in doing so, makes no suggestion to a person of ordinary skill in the art to modify the techniques of Hirose to arrive at the present invention.

Since the combination of Bickmore and Hirose fails to teach or suggest all claim limitations of claim 1, this combination does not render claims 1-15 and 41-43 obvious.

**B. Independent Claim 16**

Applicants submit that neither Bickmore nor Hirose, separately or in combination, teach or suggest “where a weight determines whether a node will be inserted into the normalized document tree as a folder title or folder contents,” and “wherein the automatic normalizer folderizes the information content by assigning content having a higher visibility of display a weight indicative of a folder title,” as in claim 16 for at least the reasons discussed above.

Further, Applicants submit that the combination of Bickmore and Hirose also fails to teach or suggest “wherein if a node has no effect on a visual display of the information content and the node is not folder contents, the node is removed,” as in claim 16. The Examiner cited to the entire Bickmore article to show this limitation, and then broadly stated that it would have been an obvious variant of the system taught by Bickmore to include this feature.

Applicants submit that the Examiner has not shown any teaching within either Bickmore or Hirose that shows “wherein if a node has no effect on a visual display of the information content and the node is not folder contents, the node is removed,” as in claim 16. Bickmore makes no mention of removing nodes when doing document transformation. Similarly, as

discussed above, Hirose transforms all information from an HTML document into view objects, and thus, no nodes are removed.

Since the combination of Bickmore and Hirose fails to teach or suggest all claim limitations of claim 16, this combination does not render claims 16-19 obvious.

**C. Independent Claim 20**

Applicants submit that neither Bickmore nor Hirose, separately or in combination, teach or suggest “where a weight determines whether a node will be inserted into the normalized document tree as a folder title or folder contents,” as in claim 20 for at least the reasons discussed above.

Further, Applicants submit that the combination of Bickmore and Hirose also fails to teach or suggest “wherein a folder can be expanded to display information content, and wherein unexpanded folder titles are displayed along with the information content of the expanded folder,” as in claim 20. The Examiner cited to the entire Bickmore article again as with the previous assertion above to show this limitation, and then made the same broad statement that it would have been an obvious variant of the system taught by Bickmore to include this feature. However, clearly Bickmore does not teach this feature, but rather when a link is selected, only the contents are displayed. *See Bickmore, Figure 4.* And, since Hirose does not mention folderizing at all, Hirose fails to teach this limitation.

Since the combination of Bickmore and Hirose fails to teach or suggest all claim limitations of claim 20, this combination does not render claims 20-22 obvious.

**D. Independent Claim 23**

Applicants submit that neither Bickmore nor Hirose, separately or in combination, teach or suggest “utilizing normalization markup in the information content to normalize the

information content, wherein the normalization markup provide at least one specific instruction for normalizing the information content,” as in claim 23.

Again, the Examiner broadly cited to the entire Bickmore article to show this claim limitation. However, the Examiner has not specifically shown anywhere within Bickmore or Hirose that teaches or suggests this claim limitation.

As Applicants explained in the Response to the Office Action mailed June 9, 2005, Bickmore teaches a document re-authoring method that is an iterative process. A document is iteratively reduced in size, so that at every step in the process, the most-promising state of the document, i.e., the state with the smallest current display area requirements, is selected and a transformation is applied to transform the document from its current state to a more promising state of the document, if possible. As soon as a state is created that contains a document version that is ‘good enough,’ the process can be halted and that version of the document is returned to the client device for rendering.

Bickmore makes no mention of “utilizing normalization markup **in the information content** to normalize the information content, wherein the normalization markup provide at least one specific instruction for normalizing the information content,” as in claim 23. Similarly, Hirose also does not mention this claim limitation.

Since the combination of Bickmore and Hirose fails to teach or suggest all claim limitations of claim 23, this combination does not render claims 23-26 obvious.

#### **E. Independent Claim 27**

Applicants submit that neither Bickmore nor Hirose, separately or in combination, teach or suggest “weighting nodes in the document tree according to the determined criteria, wherein content having a higher visibility on a display are assigned a weight indicative of a folder title,”

“removing nodes that do not affect the visual display of the information content on the device and that do not represent the information content to be displayed on the device,” and “determining parent-child relationships between the weighted nodes based on the weighted nodes to produce a normalized document tree, wherein a weighted node is established as a child of a parent having the lightest weight of all the parents that is also greater than the weight of the weighted node,” as in claim 27 for at least the reasons discussed above.

Since the combination of Bickmore and Hirose fails to teach or suggest all claim limitations of claim 27, this combination does not render claims 27-30 obvious.

**F. Independent Claim 31**

Applicants have amended claim 31 to include the subject matter of claim 36. In particular, claim 31 now recites “wherein the plurality of arrays contain values associated with the nodes of the data, and wherein operations on the nodes can be carried out by utilizing the value as referenced to the affected nodes.” Applicants submit that neither Bickmore nor Hirose, separately or in combination, teach or suggest this claim limitation. Bickmore teaches object arrays, whereas presently pending claim 31 includes integer based blocks that focus more on optimization for a smaller memory footprint and quicker access, as described at page 31, line 9 to page 34, line 3 in the present specification.

Since the combination of Bickmore and Hirose fails to teach or suggest all claim limitations of claim 31, this combination does not render claims 31-35 and 37-38 obvious.

**G. Independent Claim 39**

Applicants submit that neither Bickmore nor Hirose, separately or in combination, teach or suggest “applying changes to the document tree according to the template markup language,



wherein the template markup language provides at least one specific instruction for normalizing the information content,” as in claim 39 for at least the reasons discussed above.

Since the combination of Bickmore and Hirose fails to teach or suggest all claim limitations of claim 39, this combination does not render claims 39-40 obvious.

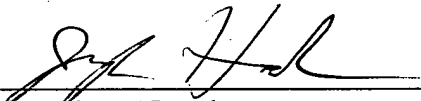
#### **IV. Conclusion**

Applicants respectively submit that, in view of the remarks above, all of the pending claims are in condition for allowance. Applicants therefore respectfully request such action. The Examiner is invited to call the undersigned at (312) 913-3331 with any questions or comments.

Respectfully submitted,

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